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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/539,125 | 04/27/2006 | Charles Watkinson | 9052-223 | 8967 |

20792 7590 11/21/2008
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| EXAMINER | |
|---|---|
| SZEWCZYK, CYNTHIA | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1791 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 11/21/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/539,125 | WATKINSON, CHARLES | |
| | Examiner | Art Unit | |
| | CYNTHIA SZEWCZYK | 1791 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. The amendment filed August 12, 2008 has been entered and fully considered.

2. Claims 1-6 are currently pending.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 cites the limitation "free-flowing". It is unclear what is intended by this. The examiner has taken the broadest reasonable definition of "moving freely".

### *Claim Rejections - 35 USC § 103*

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JENSEN (US 4,344,785) in view of WADSWORTH (US 1,375,336).

JENSEN discloses a modular molten glass column for forming glass fibers (abstract). JENSEN discloses that molten glass is fed from a forehearth (col. 4, lines 12-13) (means for producing heated stream of instant claim 1). Figure 1 shows that the molten stream is fed substantially downward. It appears that the conduit (12) that the

glass stream travels down does not contain any obstructions; therefore it may be considered that the glass flows freely down the conduit. The conduits (12) receive the molten stream of glass (means for receiving of instant claim 1). The column includes a high pressure glass fiber forming bushing (16 in figure 1) (forming fibers of instant claim 1). The column also includes a heating device (50 in figure 2) that is composed of electrical heating elements (col. 5, lines 27-28) (means for effecting change in temperature of instant claim 1). JENSEN is silent disclosing "directly heating the glass".

However, WADSWORTH discloses the use of electrical currents to directly heat molten glass (p. 8, lines 96-102). WADSWORTH discloses that directly heating the glass with electric currents varies with the resistance of the material which results in a uniform glass temperature (p. 8, lines 119-129). Therefore, it would have been obvious to a person of ordinary skill in the art to have heated JENSEN's glass with the direct heating means as taught by WADSWORTH in order to provide a heated glass with uniform temperature.

The apparatus of JENSEN teaches the method of instant claim 5.

The flow rate of glass is controlled by the viscosity of the stream, which is in turn controlled by the temperature of the melt. JENSEN discloses that the column contains temperature control elements, which in turn would control the flow rate of the molten glass as in instant claims 4 and 6.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JENSEN (US 4,344,785) in view of WADSWORTH (US 1,375,336) as applied to claims 1, and 4-9 above, and further in view of MCCAGUE (US 4.713.106).

JENSEN discloses a modular molten glass column for forming glass fibers (abstract). JENSEN fails to disclose a means for cooling prior to the stream being fed in a downward direction. MCCAGUE discloses a method and apparatus for conveying molten material. MCCAGUE discloses that the apparatus is provided with cooling means to adjust the temperature of the molten material and throttle the flow through the fitting (col. 2, lines 47-50). Figures 1 and 5 of MCCAGUE show that the cooling means is located prior to the stream being fed in a downward direction. It would have been obvious to a person of ordinary skill in the art to use the cooling means of MCCAGUE in the molten glass column of JENSEN because it would result in better flow control of the molten glass as suggested by MCCAGUE.

Regarding claim 3, MCCAGUE discloses the cooling means are equipped with a cooling fluid flowing through a conduit (col. 2, lines 51-52).

***Response to Arguments***

9. Applicant's arguments filed August 12, 2008 have been fully considered but they are not persuasive. Applicant argues that JENSEN does not teach a free flowing stream. The pending specification does not define what is intended by "free-flowing" therefore the examiner has taken the broadest reasonable definition of "moving freely". Figure 1 shows the molten stream is fed substantially downward. It appears that the

conduit (12) that the glass stream travels down does not contain any obstructions; therefore it may be considered that the glass flows freely down the conduit. Additionally, the examiner would like to point out that a river is often described as free-flowing although it is enclosed on three sides; therefore the enclosed molten glass stream of JENSEN meets the free-flowing limitation.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS
/ Carlos Lopez/
Primary Examiner, Art Unit 1791